```
=> s cunninghamel?(l)bainie?
          1035 CUNNINGHAMEL?
           290 BAINIE?
L2          45 CUNNINGHAMEL?(L)BAINIE?

=>  s l2 and piperidin?
         91252 PIPERIDIN?
L3           1 L2 AND PIPERIDIN?

=> d bib abs

L3   ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2005 ACS on STN
AN   2002:505445  CAPLUS
DN   137:78004
TI   Process for the production of piperidinylhydroxybutylphenyldimethylac
     etates via microbial oxidation.
IN   Michels, Peter C.; Zirbes, Eric L.
PA   USA
SO   U.S. Pat. Appl. Publ., 17 pp., Cont.-in-part of U.S. Ser. No. 708,959.
     CODEN: USXXCO
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
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PI   US 2002087003         A1    20020704    US 2001-754786          20010104
     US 6613907            B2    20030902
     CA 2427387            AA    20021024    CA 2001-2427387         20011106
     WO 2002083062         A2    20021024    WO 2001-US43714         20011106
     WO 2002083062         A3    20030103
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA,
             UG, UZ, VN, YU, ZA, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     EP 1339864            A2    20030903    EP 2001-273746          20011106
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
     JP 2004522454         T2    20040729    JP 2002-580867          20011106
     BR 2001015191         A     20041214    BR 2001-15191           20011106
     NZ 526040             A     20051028    NZ 2001-526040          20011106
     NO 2003001974         A     20030613    NO 2003-1974            20030430
     US 2005038254         A1    20050217    US 2003-638841          20030811
PRAI US 2000-708959        A2    20001108
     US 2001-754786        A     20010104
     WO 2001-US43714       W     20011106
OS   CASREACT 137:78004; MARPAT 137:78004
GI
```

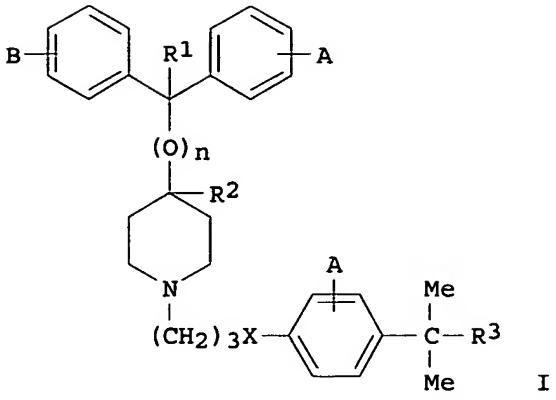

I

AB Title compds. [I; n = 0, 1; R1 = H, OH; R2 = H; or, when n = 0, R1R2 = bond; provided that when n = 1, R1 and R2 both = H; R3 = CO2H, CO2R4; R4 = alkyl, aryl; A, B, D = H, halo, alkyl, OH, alkoxy; X = CO, CH(OH)], were prepared by incubating I (R3 = Me; other variables as above) with a microorganism of a genus selected from Streptomyces, Stemphylium, Gliocladium, Bacillus, Botrytis, Cyathus, Rhizopus, Pycniodosphora, Pseudomonas, Helicostylum, Aspergillus, Mucor, Gelasinospora, Rhodotorula, Candida, Mycobacterium, or Penicillium. Alternatively, the microorganism can be **Cunninghamella bainieri**. Thus, terfenadine was incubated with Streptomyces rimosus NRRL-2234 in a soybean flour medium at 29° to give a product containing 76% terfenadine acid metabolite.

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=> s cunninghamel? and (terfen? or fexofena?)
          1035 CUNNINGHAMEL?
          1768 TERFEN?
           545 FEXOFENA?
L4           4 CUNNINGHAMEL? AND (TERFEN? OR FEXOFENA?)

=> d bib abs hit 1-4

L4   ANSWER 1 OF 4  CAPLUS  COPYRIGHT 2005 ACS on STN
AN   2002:505445  CAPLUS
DN   137:78004
TI   Process for the production of piperidinylhydroxybutylphenyldimethylacetate
     s via microbial oxidation.
IN   Michels, Peter C.; Zirbes, Eric L.
PA   USA
SO   U.S. Pat. Appl. Publ., 17 pp., Cont.-in-part of U.S. Ser. No. 708,959.
     CODEN: USXXCO
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.         DATE
     ---------------     ----   --------    --------------------    --------
PI   US 2002087003        A1    20020704    US 2001-754786          20010104
     US 6613907           B2    20030902
     CA 2427387           AA    20021024    CA 2001-2427387         20011106
     WO 2002083062        A2    20021024    WO 2001-US43714         20011106
     WO 2002083062        A3    20030103
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA,
             UG, UZ, VN, YU, ZA, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
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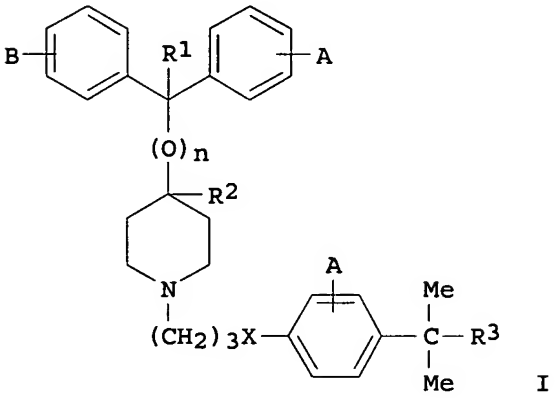
	DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	EP 1339864	A2	20030903	EP 2001-273746	20011106
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2004522454	T2	20040729	JP 2002-580867	20011106
	BR 2001015191	A	20041214	BR 2001-15191	20011106
	NZ 526040	A	20051028	NZ 2001-526040	20011106
	NO 2003001974	A	20030613	NO 2003-1974	20030430
	US 2005038254	A1	20050217	US 2003-638841	20030811
PRAI	US 2000-708959	A2	20001108		
	US 2001-754786	A	20010104		
	WO 2001-US43714	W	20011106		
OS	CASREACT 137:78004; MARPAT 137:78004				
GI					



I

AB Title compds. [I; n = 0, 1; R1 = H, OH; R2 = H; or, when n = 0, R1R2 = bond; provided that when n = 1, R1 and R2 both = H; R3 = CO2H, CO2R4; R4 = alkyl, aryl; A, B, D = H, halo, alkyl, OH, alkoxy; X = CO, CH(OH)], were prepared by incubating I (R3 = Me; other variables as above) with a microorganism of a genus selected from Streptomyces, Stemphylium, Gliocladium, Bacillus, Botrytis, Cyathus, Rhizopus, Pycniodosphora, Pseudomonas, Helicostylum, Aspergillus, Mucor, Gelasinospora, Rhodotorula, Candida, Mycobacterium, or Penicillium. Alternatively, the microorganism can be **Cunninghamella** bainieri. Thus, **terfenadine** was incubated with Streptomyces rimosus NRRL-2234 in a soybean flour medium at 29° to give a product containing 76% **terfenadine** acid metabolite.

AB Title compds. [I; n = 0, 1; R1 = H, OH; R2 = H; or, when n = 0, R1R2 = bond; provided that when n = 1, R1 and R2 both = H; R3 = CO2H, CO2R4; R4 = alkyl, aryl; A, B, D = H, halo, alkyl, OH, alkoxy; X = CO, CH(OH)], were prepared by incubating I (R3 = Me; other variables as above) with a microorganism of a genus selected from Streptomyces, Stemphylium, Gliocladium, Bacillus, Botrytis, Cyathus, Rhizopus, Pycniodosphora, Pseudomonas, Helicostylum, Aspergillus, Mucor, Gelasinospora, Rhodotorula, Candida, Mycobacterium, or Penicillium. Alternatively, the microorganism can be **Cunninghamella** bainieri. Thus, **terfenadine** was incubated with Streptomyces rimosus NRRL-2234 in a soybean flour medium at 29° to give a product containing 76% **terfenadine** acid metabolite.

ST carboxyterfenadine prepn; benzeneacetate hydroxy hydroxydiphenylmethyl piperidinylbutyl dimethyl microbial prepn; **terfenadine** microbial oxidn; piperidinylhydroxybutylphenyldimethylacetate prepn

IT Absidia spinosa

Aspergillus
Bacillus (bacterium genus)
Bacillus cereus
Botrytis
Candida
Cunninghamella bainieri
Cunninghamella echinulata
Cyathus (fungus)
Fermentation
Gelasinospora
Gliocladium
Gliocladium deliquescens
Helicostylum
Mucor
Mycobacterium
Penicillium
Pseudomonas
Pycnidiophora
Rhizopus
Rhizopus oryzae
Rhodotorula
Stemphylium
Streptomyces
Streptomyces catenulae
Streptomyces cavourensis
Streptomyces griseus
Streptomyces rimosus
Ulocladium consortiale
Westerdykella dispersa
(process for production of piperidinylhydroxybutylphenyldimethylacetates via microbial oxidation)

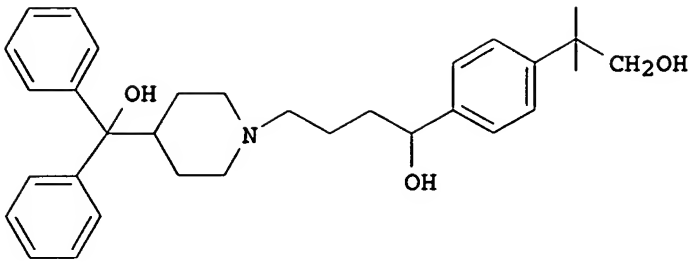
IT 83799-24-0P, **Terfenadine** acid metabolite
RL: BPN (Biosynthetic preparation); IMF (Industrial manufacture); BIOL (Biological study); PREP (Preparation)
(process for production of piperidinylhydroxybutylphenyldimethylacetates via microbial oxidation)

IT 50679-08-8, **Terfenadine**
RL: RCT (Reactant); RACT (Reactant or reagent)
(process for production of piperidinylhydroxybutylphenyldimethylacetates via microbial oxidation)

L4 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:706359 CAPLUS
DN 133:280646
TI Procedure for the biocatalyzed regioselective oxidation of **terfenadine**
IN Schmitz, Guenther; Takors, Rald; Weuster-Botz, Dirk; Wandrey, Christian
PA Forschungszentrum Julich G.m.b.H., Germany
SO Ger. Offen., 10 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19913862	A1	20001005	DE 1999-19913862	19990326
	DE 19913862	C2	20030410		
PRAI	DE 1999-19913862		19990326		

GI



I

AB A process is provided for the biocatalytic conversion and separation of a racemic compound that has low water solubility in a membrane coupled bioreactor.

In this process the substrate compound which is in microcryst. form and the biocatalyst are retained in the bioreactor while the product is removed via crossflow filtration. Thus **terfenadine** was biocatalyzed by **Cunninghamella** blakesleeana to an alc.(I) in a membrane coupled stirred tank fermentor. The alc. I was then removed from the fermentor through coupled crossflow filter membrane while the microbial cells and microcryst. **terfenadine** were retained. After eighty hours of fermentation, the concentration of I rose to ~ 200 mg/l and removed at this level for the remaining 120 h of fermentation A total of 900 mg/l of I was produced over the course of the fermentation The alc. produced, I, was recovered from the permeate by ion exchange chromatog. Also in the scope of the invention is the conversion of I to the carboxylic acid **fexofenadine** which is facilitated by the activation of the tert-Bu group of **terfenadine** to an alc. by the regioselective oxidation

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Procedure for the biocatalyzed regioselective oxidation of **terfenadine**

AB A process is provided for the biocatalytic conversion and separation of a racemic compound that has low water solubility in a membrane coupled bioreactor.

In this process the substrate compound which is in microcryst. form and the biocatalyst are retained in the bioreactor while the product is removed via crossflow filtration. Thus **terfenadine** was biocatalyzed by **Cunninghamella** blakesleeana to an alc.(I) in a membrane coupled stirred tank fermentor. The alc. I was then removed from the fermentor through coupled crossflow filter membrane while the microbial cells and microcryst. **terfenadine** were retained. After eighty hours of fermentation, the concentration of I rose to ~ 200 mg/l and removed at this level for the remaining 120 h of fermentation A total of 900 mg/l of I was produced over the course of the fermentation The alc. produced, I, was recovered from the permeate by ion exchange chromatog. Also in the scope of the invention is the conversion of I to the carboxylic acid **fexofenadine** which is facilitated by the activation of the tert-Bu group of **terfenadine** to an alc. by the regioselective oxidation

ST **Cunninghamella terfenadine** biooxidn membrane sepn

IT **Cunninghamella** blakesleeana
(biocatalyzed regioselective oxidation of **terfenadine**)

IT Oxidation
(biol.; biocatalyzed regioselective oxidation of **terfenadine**)

IT Fermentation apparatus
(cell recycle fermentor, crossflow membrane coupled; biocatalyzed regioselective oxidation of **terfenadine**)

IT Fermentation
(fed-batch; biocatalyzed regioselective oxidation of **terfenadine**)

IT Oxidation
(regioselective; biocatalyzed regioselective oxidation of **terfenadine**)
IT 83799-24-0P, **Fexofenadine**
RL: BMF (Bioindustrial manufacture); RCT (Reactant); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
(biocatalyzed regioselective oxidation of **terfenadine**)
IT 76815-56-0P
RL: BPN (Biosynthetic preparation); PUR (Purification or recovery); RCT (Reactant); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
(biocatalyzed regioselective oxidation of **terfenadine**)
IT 50679-08-8, **Terfenadine**
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(biocatalyzed regioselective oxidation of **terfenadine**)
IT 67-56-1, Methanol, uses 67-68-5, DMSO, uses 68-12-2, DMF, uses
RL: NUU (Other use, unclassified); USES (Uses)
(biocatalyzed regioselective oxidation of **terfenadine**)
IT 37380-42-0, XAD-4
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(biocatalyzed regioselective oxidation of **terfenadine**)
IT 9003-07-0, Polypropylene
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(membrane composition; biocatalyzed regioselective oxidation of **terfenadine**)

L4 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:505927 CAPLUS
DN 133:334093
TI Regioselective oxidation of **terfenadine** with **Cunninghamella** blakesleeana
AU Schmitz, G.; Franke, D.; Stevens, S.; Takors, R.; Weuster-Botz, D.; Wandrey, C.
CS Institute of Biotechnology, Research Centre Juelich, Julich, D-52428, Germany
SO Journal of Molecular Catalysis B: Enzymatic (2000), 10(1-3), 313-324
CODEN: JMCEF8; ISSN: 1381-1177
PB Elsevier Science B.V.
DT Journal
LA English
OS CASREACT 133:334093
AB The regioselective oxidation of **terfenadine** with the fungi **Cunninghamella** blakesleeana was studied as a biochem. alternative for the chemical synthesis of the antihistaminic drug **fexofenadine**. It was demonstrated that C. blakesleeana oxidizes the tert-Bu group of **terfenadine** to the corresponding alc. 1-[4-(1,1-dimethyl-2-hydroxyethyl)phenyl]-4-[4-(hydroxydiphenylmethyl)-1-piperidinyl]-1-butanol. A continuous process for regioselective oxidation of **terfenadine** was developed. **Terfenadine** was supplied micro-crystalline due to the low solubility in water. Optimum reaction conditions with respect to medium composition, temperature, pH, pO2, co-substrate and feeding rates were found by means of reaction engineering studies. A cross-flow microfiltration unit was operated in a bypass of a lab-scale stirred tank reactor for retention of the biocatalysts and the micro-crystalline substrate. The alc. was continuously removed with the filtrate to minimize product inhibition. Continuous biotransformation of micro-crystalline **terfenadine** with C. blakesleeana in the membrane reactor system with a dilution rate of 33 h at co-substrate concns. of about 1 up to 3 g/l glycerol in the reactor resulted in a space-time yield of 145 mg of alc./l/day and an alc. yield of 71%. The produced alc. was easily

isolated from the filtrate by adsorption on XAD-4 resin followed by elution with methanol (concentration factor 7).

RE.CNT 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Regioselective oxidation of **terfenadine** with **Cunninghamella** blakesleeana

AB The regioselective oxidation of **terfenadine** with the fungi **Cunninghamella** blakesleeana was studied as a biochem. alternative for the chemical synthesis of the antihistaminic drug **fexofenadine**. It was demonstrated that C. blakesleeana oxidizes the tert-Bu group of **terfenadine** to the corresponding alc. 1-[4-(1,1-dimethyl-2-hydroxyethyl)phenyl]-4-[4-(hydroxydiphenylmethyl)-1-piperidinyl]-1-butanol. A continuous process for regioselective oxidation of **terfenadine** was developed. **Terfenadine** was supplied micro-crystalline due to the low solubility in water. Optimum reaction conditions with respect to medium composition, temperature, pH, pO2, co-substrate and feeding rates were found by means of reaction engineering studies. A cross-flow microfiltration unit was operated in a bypass of a lab-scale stirred tank reactor for retention of the biocatalysts and the micro-crystalline substrate. The alc. was continuously removed with the filtrate to minimize product inhibition. Continuous biotransformation of micro-crystalline **terfenadine** with C. blakesleeana in the membrane reactor system with a dilution rate of 33 h at co-substrate concns. of about 1 up to 3 g/l glycerol in the reactor resulted in a space-time yield of 145 mg of alc./l/day and an alc. yield of 71%. The produced alc. was easily isolated from the filtrate by adsorption on XAD-4 resin followed by elution with methanol (concentration factor 7).

ST **Cunninghamella terfenadine** regioselective oxidn

IT Oxidation
(biol.; regioselective oxidation of **terfenadine** with **Cunninghamella** blakesleeana)

IT Fermentation apparatus
(cell recycle fermentor, with a crossflow membrane filter; regioselective oxidation of **terfenadine** with **Cunninghamella** blakesleeana)

IT Fermentation
(continuous; regioselective oxidation of **terfenadine** with **Cunninghamella** blakesleeana)

IT Yeast
(extract; regioselective oxidation of **terfenadine** with **Cunninghamella** blakesleeana)

IT Fermentation
(fed-batch; regioselective oxidation of **terfenadine** with **Cunninghamella** blakesleeana)

IT Soybean (Glycine max)
Soybean (Glycine max)
(flour; regioselective oxidation of **terfenadine** with **Cunninghamella** blakesleeana)

IT **Cunninghamella** blakesleeana
(regioselective oxidation of **terfenadine** with **Cunninghamella** blakesleeana)

IT Lecithins
Soybean oil
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(regioselective oxidation of **terfenadine** with **Cunninghamella** blakesleeana)

IT Polyoxyalkylenes, processes
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(regioselective oxidation of **terfenadine** with **Cunninghamella** blakesleeana)

IT Oxidation

(regioselective; regioselective oxidation of **terfenadine** with **Cunninghamella** blakesleeana)

IT Flours and Meals
Flours and Meals
(soybean; regioselective oxidation of **terfenadine** with **Cunninghamella** blakesleeana)

IT Optimization
(statistical; regioselective oxidation of **terfenadine** with **Cunninghamella** blakesleeana)

IT 101-84-8, Diphenyl ether 106-42-3, p-Xylene, biological studies 111-87-5, 1-Octanol, biological studies 112-12-9, 2-Undecanone
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(regioselective oxidation of **terfenadine** with **Cunninghamella** blakesleeana)

IT 76815-56-0P
RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
(regioselective oxidation of **terfenadine** with **Cunninghamella** blakesleeana)

IT 50-21-5, Lactic acid, biological studies 50-99-7, Dextrose, biological studies 56-81-5, Glycerol, biological studies 57-48-7, D-Fructose, biological studies 59-23-4, D-Galactose, biological studies 64-19-7, Acetic acid, biological studies 69-65-8, Mannitol 77-92-9, Citric acid, biological studies 544-76-3, Hexadecane 7782-44-7, Oxygen, biological studies 9005-25-8, Starch, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(regioselective oxidation of **terfenadine** with **Cunninghamella** blakesleeana)

IT 50679-08-8, **Terfenadine**
RL: BPR (Biological process); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent)
(regioselective oxidation of **terfenadine** with **Cunninghamella** blakesleeana)

IT 83799-24-0, **Fexofenadine**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(regioselective oxidation of **terfenadine** with **Cunninghamella** blakesleeana)

IT 64-17-5, Ethanol, processes 67-56-1, Methanol, processes 67-68-5, DMSO, processes 68-12-2, DMF, processes 123-95-5 25322-68-3, Polyethylene glycol
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(regioselective oxidation of **terfenadine** with **Cunninghamella** blakesleeana)

L4 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:614162 CAPLUS
DN 131:213195
TI Novel method for preparing **fexofenadine**
IN Azerad, Robert; Biton, Jacques; Lacroix, Isabelle
PA Hoechst Marion Roussel, Fr.
SO PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DT Patent
LA French
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9947693	A1	19990923	WO 1999-FR625	19990318

W: AE, AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

	FR 2776302	A1	19990924	FR 1998-3349	19980319
	FR 2776302	B1	20020412		
	AU 9928427	A1	19991011	AU 1999-28427	19990318
	EP 1062358	A1	20001227	EP 1999-909036	19990318
	EP 1062358	B1	20030604		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				
	JP 2002506653	T2	20020305	JP 2000-536876	19990318
	AT 242333	E	20030615	AT 1999-909036	19990318
	PT 1062358	T	20031031	PT 1999-909036	19990318
	ES 2196783	T3	20031216	ES 1999-909036	19990318
	US 6558931	B1	20030506	US 2000-646517	20001031
PRAI	FR 1998-3349	A	19980319		
	WO 1999-FR625	W	19990318		

AB The invention concerns a method for preparing **fexofenadine** from **terfenadine** by a bioconversion process using Absidia corymbifera LCP 63-1800 or Streptomyces platensis NRRL 2364 strain.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Novel method for preparing **fexofenadine**

AB The invention concerns a method for preparing **fexofenadine** from **terfenadine** by a bioconversion process using Absidia corymbifera LCP 63-1800 or Streptomyces platensis NRRL 2364 strain.

ST **terfenadine** Absidia Streptomyces **fexofenadine** fermn

IT Absidia
Absidia corymbifera
Actinomucor elegans
Cunninghamella
Fermentation
Streptomyces
Streptomyces platensis
(preparing **fexofenadine** from **terfenadine** by Absidia corymbifera or Streptomyces platensis)

IT 50679-08-8P, **Terfenadine**
RL: BMF (Bioindustrial manufacture); BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparing **fexofenadine** from **terfenadine** by Absidia corymbifera or Streptomyces platensis)

IT 76815-56-0
RL: BPR (Biological process); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); PROC (Process)
(preparing **fexofenadine** from **terfenadine** by Absidia corymbifera or Streptomyces platensis)

IT 83799-24-0, **Fexofenadine**
RL: BPR (Biological process); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent)
(preparing **fexofenadine** from **terfenadine** by Absidia corymbifera or Streptomyces platensis)

IT 213013-68-4P 213013-69-5P, **Terfenadine** phosphate
RL: BYP (Byproduct); PREP (Preparation)
(preparing **fexofenadine** from **terfenadine** by Absidia corymbifera or Streptomyces platensis)